DOCUMENT RESUME

ED 128 596 CE 007 748

AUTHOR	Bates, Timothy
TITLE	Involuntary Underemployment Among Heads of Households. Institute for Research on Poverty Discussion Papers.
INSTITUTION	Wisconsin Univ., Madison. Inst. for Research on Poverty.
SPONS AGENCY	Department of Health, Education, and Welfare, Washington, D.C.
REPORT NO	IRP-DP-338-76
PUB DATE	Mar 76
NOTE	28p.; Pages 6 and 10 will not reproduce well due to faint and broken type.
EDRS PRICE	MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS	Economic Research; Employment Patterns; *Heads of Households; Income; Laborers; Labor Market; Low Income Groups; Manpower Needs; Motivation; National Norms; *Part Time Jobs; Socioeconomic Status; *Underemployed; Unskilled Workers; Wages; Work Attitudes; Work Experience

ABSTRACT

Utilizing a data file extracted from the University of Michigan Survey Research Center's Panel Study of Income Dynamics, this study examines the work experiences of a national sample of non-aged heads of households. This data source, which describes heads of households and structural characteristics of labor markets, is unique in that underemployed heads of households indicate whether their part-time working status is voluntary or involuntary. Among the heads who were employed during 1971, 15% were part-time workers in the sense that they worked, on average, less than 30 hours per week and/or no more than 40 weeks per year. Findings of this study indicate that 54% of these part-time workers were involuntarily underemployed, willing but unable to devote more time to gainful employment. Furthermore, household heads who were involuntarily underemployed in 1971 constituted a clear majority of all non-aged heads who were (1) unemployed (58.0%) and (2) recent labor force dropouts (55.5%) during the spring of 1972. These heads of households are, when working, concentrated in low wage jobs. (Author)

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ED128596

Involuntary Underemployment Among Heads of Households

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March 1976

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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The research reported here was supported by funds granted to the Institute for Research on Poverty at the University of Wisconsin-Madison by the Department of Health, Education, and Welfare pursuant to the Economic Opportunity Act of 1964. This paper was presented at the December 1975 meetings of the American Economic Association, Dallas, Texas, for the Labor Market and Unemployment session of contributed papers. The author is an Assistant Professor in the Department of Economics at the University of Vermont. The opinions expressed are those of the author.

ED 128 596

ABSTRACT

This study addresses two interrelated questions: (1) What is the national incidence of involuntary underemployment among non-aged heads of households? (2) What characteristics distinguish household heads who prefer part-time work from those who are involuntarily underemployed?

Utilizing a data file extracted from the University of Michigan Survey Research Center's Panel Study of Income Dynamics, this study examines the work experiences of a national sample of non-aged heads of households. This data source, which describes heads of households and structural characteristics of labor markets, is unique in that underemployed heads of households indicate whether their part-time working status is voluntary or involuntary. Among the heads who were employed during 1971, 15 percent were part-time workers in the sense that they worked, on average, less than 30 hours per week and, or no more than 40 weeks per year. Findings of this study indicate that 54 percent of these part-time workers were involuntarily underemployed, willing but unable to devote more time to gainful employment. Furthermore, household heads who were involuntarily underemployed in 1971 constituted a clear majority of all non-aged heads who were (1) unemployed (58.0 percent) and (2) recent labor force dropouts (55.5 percent) during the spring of 1972.* These heads of households are, when working, concentrated in low wage jobs.

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*These percentages are weighted in a manner that makes them unbiased estimates of corresponding national labor market phenomena.

Involuntary Underemployment Among Heads of Households

This study examines the work experiences of a national sample of non-aged heads of households. Among the heads who were employed during 1971, 15 percent were part-time workers in the sense that they worked, on average, less than 30 hours per week and, or no more than 40 weeks per year. Findings in this study indicate that 54 percent of these part-time workers were involuntarily underemployed, willing but unable to devote more time to gainful employment. Because these underemployed heads of households are concentrated in unskilled, low-wage jobs, their labor incomes frequently provide no more than a poverty level existence. Furthermore, since these same household heads are involuntarily restricted to part-time work, the evidence presented herein suggests that the incidence of poverty among working heads of households could be reduced by increasing the quantity of work available to America's less-skilled, underemployed workers.

The present study analyzes two interrelated questions: (1) What is the national incidence of involuntary underemployment among non-aged heads of households? (2) What characteristics distinguish household heads who prefer part-time work from those who are involuntarily underemployed? Discriminant functions are estimated which can identify workers who are likely to be involuntarily underemployed. Results of the discriminant analysis exercises suggest that age and years of schooling are key predictors of involuntary underemployment among heads of households. Furthermore, household heads who were involuntarily underemployed in 1971 constituted a clear majority of <u>all</u> non-aged heads

of households who were (1) unemployed (58.0 percent) and (2) recent labor force dropouts (55.5 percent) during the spring of 1972. A small, identifiable group of heads of households appears to be moving from underemployment to unemployment or non-participation, back to underemployment, and so forth. Not surprisingly, these heads of households are, when working, conentrated in low-wage jobs.

Measuring Underemployment

Underemployment suggests underutilization. For the household heads considered in this study, underemployment afflicts those labor market participants unable to utilize fully either their time or their talents on the job. One is underemployed when one is employed, but is not working to his capacity. While underutilization of one's talents (as opposed to one's time) is a major source of underemployment, measurement of talents and talent utilization is rather intangible and hence beyond the scope of this study. Instead, labor utilization will refer solely to quantity of labor input, measured by weeks of work and average hours of work per week.

Closely related to underemployment, the concept of subemployment includes persons working full-time, but earning a poverty level wage, those working part-time who are seeking full-time work, and persons who have dropped out of the labor force because of discouragement. A survey initiated by former Labor Secretary Willard Wirtz in 1966 measured subemployment in the slums of ten large cities.[1] Resultant estimates of ghetto subemployment rates ranged from 24.2 percent in Boston's Roxbury to 47.4 percent in the slums of San Antonio. Using

any income line as a measure of subemployment is crude, but the Wirtz survey provided a useful glimpse of phenomena that later researchers have referred to as a "secondary" labor market where unskilled workers earn low wages working at unstable jobs.[2] The Wirtz Slum Employment Survey has never been updated.

Available measures of labor utilization usually pay scant attention to underemployment of household heads. Government statistics typically focus upon employment and unemployment rates of males, females, whites and nonwhites. When employment statistics do grapple with underemployment, though, they invariably ignore a key question: are the underemployed voluntarily working part-time or are they, in fact, willing but unable to get additional work? One useful exception, The 1973 Manpower Report of the President, devoted three paragraphs to part-time employment. According to this source, 13.2 million workers (16 percent of total employment) were on part-time schedules during 1972. Furthermore, "four-fifths of all the part-time workers, chiefly adult women and teenagers, did not want full-time jobs," and the number of "people working part-time involuntarily declined significantly in the latter part of the year (1972)."[3] This analysis is definitely not a comprehensive examination of involuntary underemployment.

The Department of Labor's method of measuring involuntary underemployment identifies only one of several aspects of involuntary part-time work; it does not (and cannot) measure the national incidence of involuntary underemployment because of its cross-sectional nature. A substantial number of America's part-time workers cannot find year-round work but when they are actively employed, they work full-time in

terms of number of hours per week on the job. Cross section BLS surveys, depending upon the survey date, would classify these part-time workers into one of three categories: (1) fully employed, (2) unemployed, or (3) not in the labor force. Workers who are employed 35 or more hours per week (35 hours is the Labor Department's cutoff point regarding part-time, full-time employment) but who cannot find year-round work will never be counted as involuntary part-time workers if one utilizes the Department of Labor's one dimensional criteria (hours of work per week) for measuring underemployment. Evidence presented in this study suggests that a two dimensional measure of underemployment, which utilizes (1) average hours of work per week (when employed), and (2) number of weeks worked per year, provides a superior measure of the incidence of underemployment.

Voluntary and Involuntary Underemployment

My analysis of underemployment utilizes a data file which was extracted from the University of Michigan Survey Research Center's Panel Study of Income Dynamics. Household heads who (1) were age 62 or older, (2) were not living in the United States, or (3) provided incomplete and/or contradictory information were excluded from the analysis tape. The data source describes heads of households and structural characteristics of labor markets, and it is unique in that underemployed heads of households indicate whether their part-time working status is voluntary and involuntary. Each employed household head responded to the question, "Was there more work available on your job (any of your jobs) so that you could have worked more if you

had wanted to?" If the respondent answered "no," he was asked, "Would you have liked to work more if you could have found more work?"[4] Heads answering affirmatively who worked less than 30 hours per week (on average) and, or no more than 40 weeks per year are considered involuntarily underemployed for purposes of this study.

1. Distinguishing Voluntary from Involuntary Underemployment

Based upon actual 1971 labor input and stated past preferences toward additional work, a group of all voluntarily underemployed and a group containing all involuntarily underemployed household heads less than age 62 have been segregated from the overall data file. Using traits of the household heads and labor market characteristics as independent variables, multiple discriminant analysis was applied to these samples to find variables which discriminate between the two groups. Six types of independent variables have been utilized in the discriminant models: (1) personal traits, (2) education and training, (3) family status, (4) occupation, (5) income, and (6) characteristics of one's place of employment and residence. Variables with statistically significant discriminating power are found in each of these six groups; in descending order (by discriminating power) these variables are education, age, region of the country, occupation (unskilled laborer), number of dependents, an index of one's aspirations, health, race (Black), past job stability, and total non-wage income (excluding transfers). Interestingly, variables measuring income from transfer payments, sex, and "intelligence" (test score) are trivial discriminators.

Social scientists analyzing the Panel Study of Income Dynamics data have such a rich selection of relevant variables to work with that resultant econometric models of labor market behavior invariably become unwieldy. The estimation effort at hand is no exception. The resultant discriminant function and classification results, though, are remarkably insensitive to minor variations in model specification.

a. The Variables

A complete list of the explanatory variables used in the discriminant analysis exercises appear below.[5]

1. Personal traits:

a_1 Age -- measure in years

a_2 Age^2

a_3 Sex -- dummy variable; male = 1

a_4 Race, ethnic group -- dummy variable; black = 1

a_5 Race, ethnic group -- dummy variable; other non-white = 1

a_6 Health -- dummy variable; health problem limiting working ability = 1

a_7 Intelligence -- measured by score on a sentence completion test

a_8 Aspirations -- an index of personal attitudes and plans[6]

a_9 Work habits -- dummy = 1 if (a) head skips work at least once a month for reasons other than illness, and/or (b) head is late to work at least once a month

a_{10} Job stability -- dummy = 1 if head has "had a number of different jobs"

a_{11} Job tenure -- variable = 1 for less than one year;
variable = 2 for one year to 18 months;
variable = 3 for 1-1/2 to 3-1/2 years;
variable = 4 for 3-1/2 to 9-1/2 years;
variable = 5 for 9-1/2 to 19-1/2 years;
variable = 6 for over 19-1/2 years

2. Education and training:

   b_1 Education -- measured in years

   b_2 Education^2

   b_3 Veteran -- dummy variable; military vet = 1

3. Family status:

   c_1 Marital status -- dummy variable; married head = 1

   c_2 Number of dependents -- includes head, spouse, and all other dependents both in and out of the family unit

4. Occupation (all of these are dummy variables):

   d_1 Self-employed

   d_2 Professional

   d_3 Clerical, sales

   d_4 Craftsmen, foremen and kindred workers

   d_5 Operative

   d_6 Laborer

5. Income (variables are measured in dollars):

   e_1 Average hourly labor income

   e_2 Spouse's labor income (total)

   e_3 Income from transfer payments

   e_4 Income from all other sources

6. Characteristics of one's place of residence and employment:

   f_1 Union -- dummy variable; union member = 1

   f_2 Urban -- dummy variable; urban = 1 if (a) head lives in a city with 5,000 or more inhabitants, or (b) head lives within 15 miles of the center of a city with 50,000 or more inhabitants

   f_3 County unemployment rate -- variable = 1 for rate less than 2%
   variable = 2 for rate of 2-3.9%
   variable = 3 for rate of 4-5.9%
   variable = 4 for rate of 6-10%
   variable = 5 for rate over 10%

f_4 South -- dummy variable; head living in southern state = 1

f_5 Northeast -- dummy variable; head living in northeastern state = 1

f_6 Northcentral -- dummy variable; head living in northcentral state = 1

b. The Discriminant Analysis Model

In describing a sample of data that is divided into two groups, the basic question to be answered is whether these two groups, voluntarily underemployed household heads and involuntarily underemployed heads, differ in their mean vectors. The statistic used to test the significance of this difference has an F distribution, and the F test shows that group vectors corresponding to the samples of voluntarily and involuntarily underemployed heads are significantly different.

c. The Discriminating Power of the Various Explanatory Variables

Table 1 shows that education (years of schooling) and age, with 20.32 and 18.59 percent of the model's discriminating power respectively, are by far the strongest explanatory variables in terms of being able to distinguish household heads who prefer part-time work from those who are involuntarily underemployed. Table 2 shows that household heads less than age 25 and older than 55 are most likely to experience involuntary underemployment; heads of households in the 18 to 20 age bracket are hardest hit. Household heads with less than six years of schooling are especially prone to involuntary underemployment, while those with one or more years of high school, and one or more years of college (but no degree) are least likely to suffer involuntary underemployment. College graduates, especially those with some graduate or

professional degree work, are more likely to be underemployed involuntarily than high school dropouts, but these most highly educated groups undoubtedly include teachers who fail to land summer-time jobs, underemployed writers and artists, directors waiting for Hollywood to recognize their genius, and so forth.

In addition to age and education, eleven other variables are statistically significant discriminators and they account for about 40 percent of the model's discriminating power.[7] They are listed below:

1. Variables indicating that part-time work status is voluntary (plus sign attached to coefficient)
   a. Health--health problem limits head's working ability.
   b. South, Northcentral--heads living in these parts of the country are being compared to heads living in western states.
   c. Non-wage income--higher nonwage incomes (excluding transfers) are positively related to voluntary part-time work status.
   d. Hourly wage--shows same relationship as nonwage income.
2. Variables indicating that part-time work status is involuntary (minus sign attached to variable coefficient)
   a. Unskilled labor, clerical and sales occupations are associated with involuntary underemployment.
   b. Number of dependents is positively related to involuntary underemployment.
   c. Race--Blacks are, other things equal, more likely to be involuntarily underemployed than Whites.
   d. Aspirations--higher aspirations and involuntary underemployment are positively related.
   e. Job stability--heads who have had a number of different jobs are more likely to be involuntarily underemployed, other things equal.

Interestingly, variables measuring income from transfer payments, sex, urban/rural residence, and local unemployment rates were trivial

Table 1. Discrininant Function and Group Mean Vectors for a) Involuntarily Underemployed and b) Voluntarily Underemployed Heads of Households

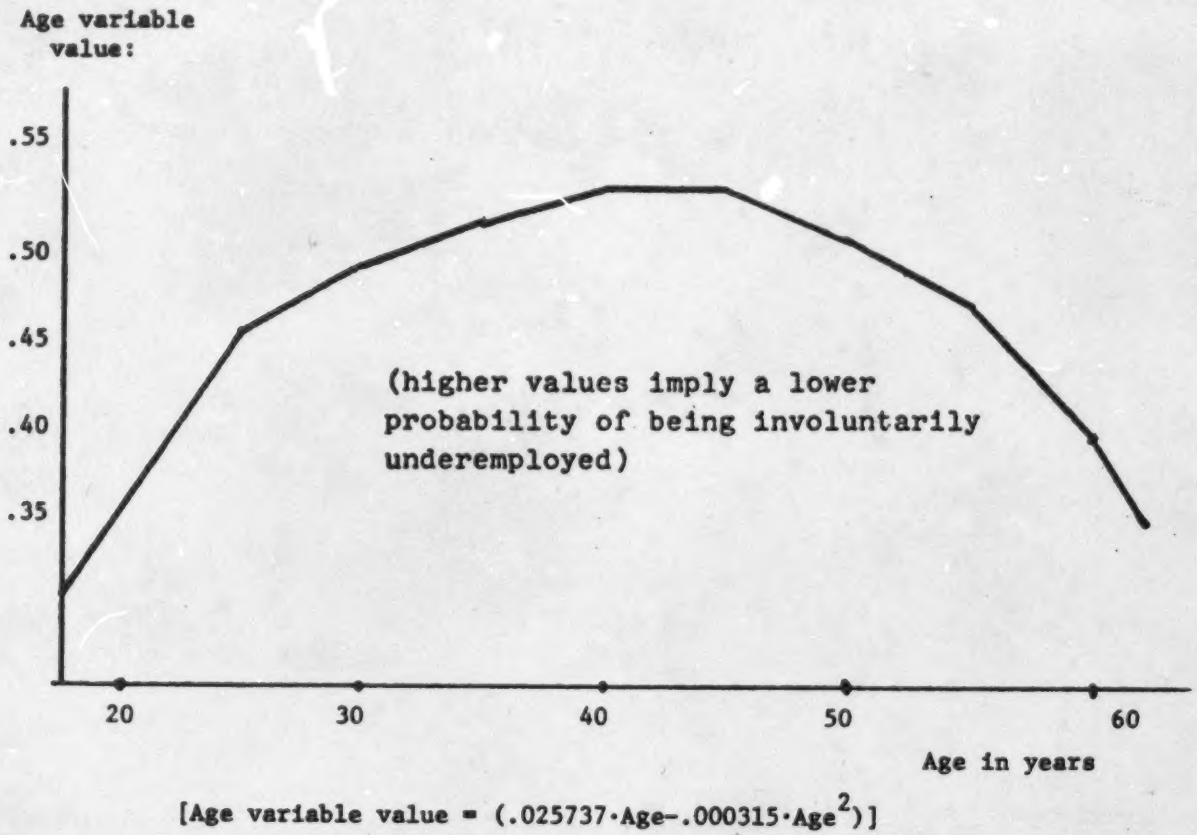
	Variable	Coefficient	Percent discriminating power accounted for by each variable	Mean: voluntary underemployment	Mean: involuntary underemployment
a_1	Age	.02574	9.56%	37.299	35.593
a_2	Age^2	-.00032	9.03%	1558.179	1432.523
a_3	Sex	-.14666	1.98%	.609	.710
a_4	Black	-.26161	3.66%	.315	.506
a_5	Other non-White	-.12719	0.70%	.022	.050
a_6	Health	.33260	3.73%	.174	.116
a_7	Intelligence	.12720	0.85%	9.337	8.548
a_8	Aspirations	-.89929	3.94%	2.043	2.510
a_9	Work habits	.01338	0.15%	.147	.199
a_{10}	Job stability	-.23741	3.32%	.321	.481
a_{11}	Job tenure	.01425	0.72%	2.712	2.494
b_1	Education	.09946	10.99%	11.603	9.896
b_2	$Education^2$	-.00420	9.33%	147.592	113.946
b_3	Vet.	.12930	1.58%	.272	.212
c_1	Married	-.16164	2.31%	.495	.577
c_2	# Dependents	-.07071	4.18%	2.778	3.490
d_1	Self-employed	-.34676	1.56%	.033	.021
d_2	Professional	.10394	1.05%	.245	.083
d_3	Clerical, Sales	-.29163	2.61%	.120	.100
d_4	Craftsmen	-.23868	2.29%	.120	.133
d_5	Operatives	-.17742	2.08%	.185	.228
d_6	Laborers	-.35621	4.84%	.266	.415

Table 1 (cont.)

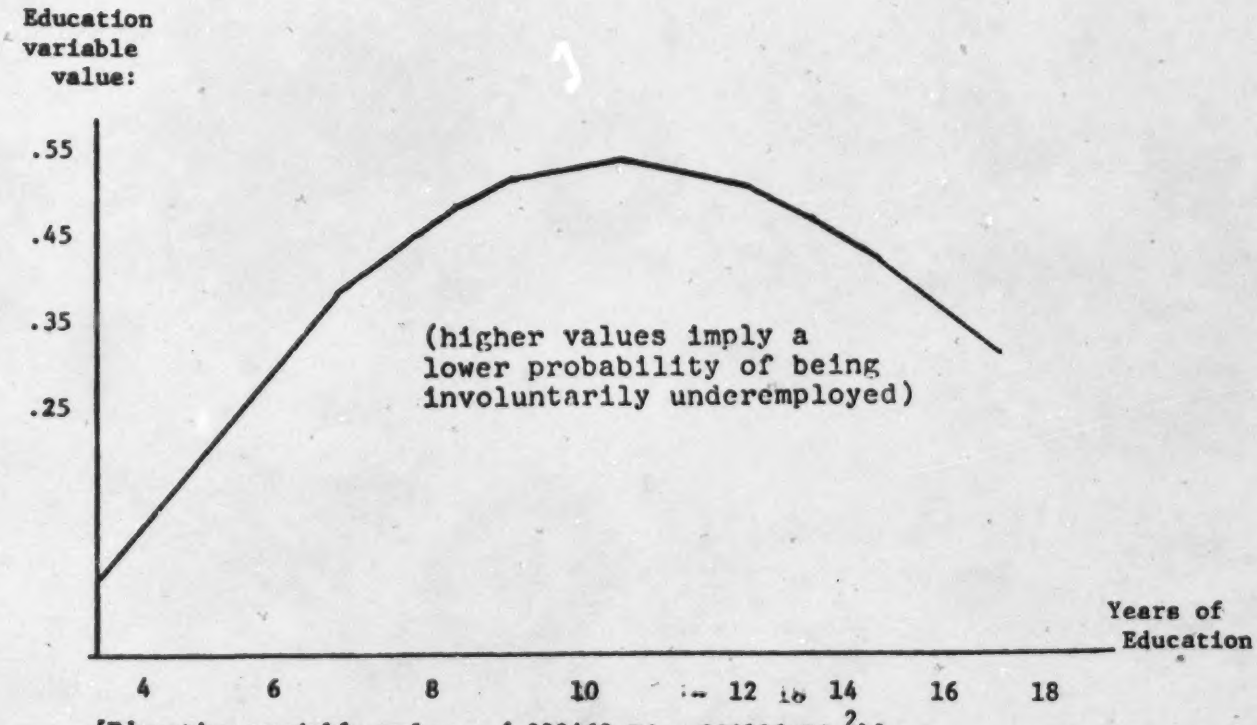
	Variable	Coefficient	Percent discriminating power accounted for by each variable	Mean: voluntary underemployment	Mean: involuntary underemployment
e_1	Hourly wage	.03320	2.47%	3.321	2.701
e_2	Spouse's income	.00002	1.25%	1225.353	928.183
e_3	Transfers	.00001	0.47%	917.620	960.826
3_4	Other income	.00005	3.03%	699.832	247.456
f_1	Union	-.14072	1.83%	.239	.332
f_2	Urban	-.09676	1.21%	.717	.768
f_3	Unemployment	-.04315	0.96%	3.130	3.207
f_4	South	.28324	3.94%	.347	.386
f_5	Northeast	.07573	0.80%	.168	.154
f_6	Northcentral	.28668	3.57%	.299	.216
	Number of observations			184	241

Test for equality of group means: F = 3.27; F statistic is significant at the 0.01 level, implying that the group mean vectors are significantly different.

Table 2. Relationships between Age, Education, and the Likelihood of being Involuntarily Underemployed



[Age variable value = (.025737·Age−.000315·Age^2)]



[Education variable value = (.099462·Ed.−.004196·Ed.^{2})]

discriminators. It is not surprising to observe that young heads of households with little schooling who work as unskilled laborers possess a bundle of traits associated (quite strongly) with involuntary underemployment. Furthermore, the discriminant analysis results suggest that advancing age limits work availability, particularly for the unskilled, least educated household heads. As the least skilled grow older, they become increasingly less capable of performing the hard physical labor that typifies many of the job opportunities open to the less educated members of the labor force.

d. Discriminant Function Classification Results

Perhaps the most interesting application of discriminant analysis occurs when one attempts to classify individual observations into predetermined (appropriate) groups, voluntarily and involuntarily underemployed heads of households in this instance.

Appropriate form for discriminant function classification depends upon the equality (or lack thereof) of the 32 variable group variance-covariance matrices that characterize the voluntarily and involuntarily underemployed groups of household heads. Because the group variance-covariance matrices (corresponding to the voluntarily underemployed and the involuntarily underemployed groups) are significantly different (F=1.77) at the one percent level, quadratic functions will be used in the following classification exercises.[8] Three-hundred-forty-five (81.2 percent) of the 425 observations were correctly classified; 32 of the 241 involuntarily underemployed were, in fact, classified as voluntarily underemployed, while 48 of the 184 voluntarily underemployed were classified as involuntarily

Table 3. Classification Results for Employed Household Heads Who Work Part-Time

	Actual	Predicted	
		Voluntary	Involuntary
Voluntary	184	136	48
Involuntary	241	32	209
Total	425	168	257

underemployed. The quadratic function corresponding to the discriminant function appearing in Table 1 thus was capable of classifying individual observations into appropriate categories with errors in only 18.8 percent of all observations considered.

2. Estimating the Overall Incidence of Involuntary Under employment

The discriminant analysis exercises summarized in the last section dealt with household heads who were employed in early 1972 (i.e., the Survey Research Center's survey date) and who worked, on average, less than 30 hours per week and/or no more than 40 weeks during 1971. Every observation utilized in the panel study of income dynamics (the data source for this study) has been weighted by the Survey Research Center (SRC) such that observations, when multiplied by their respective weights, will be representative of the entire U.S. population. When the 184 and 241 household heads who were voluntarily and involuntarily underemployed are weighted to represent a cross-section of all U.S. households, the following estimates (based upon the entire weighted SRC sample) emerge:

1. Amongst non-aged household heads, 94.2 percent were employed during 1971.
2. Non-aged household heads who were employed in early 1972 (on the survey date) and who worked part-time (as defined herein) in 1971 accounted for 9.98 percent of all households heads (non-aged) employed during 1971.
3. This group of 9.98 percent, when broken down into voluntarily and involuntarily underemployed subsets, is as follows:

a. 53.2 percent were voluntarily working part-time;

b. 46.8 percent were involuntarily restricted to part-time employment.

It is now appropriate to consider two additional groups of non-aged household heads who worked during 1971: heads who are, on the 1972 SRC survey date, either (1) unemployed, or (2) labor force dropouts. These two groups contained, respectively, 2.36 percent and 3.69 percent of all heads of households (non-aged) who worked in 1971 (percentage figures are weighted) and most of them worked part-time:

1. 88.4 percent of those not in the labor force in early 1972 (the survey date) were employed less than full-time in 1971; and
2. 73.4 percent of those counted as unemployed (but seeking work) in early 1972 were employed less than full-time in 1971.

To measure the overall incidence of part-time employment amongst non-aged heads of households, one simply adds those labor force dropouts and unemployed who worked part-time in 1971 (4.99 percent of non-aged heads) to those employed heads who worked part-time in 1971 (9.98 percent of non-aged heads). The results: 14.97 percent, or approximately 15 percent, of all non-aged heads who worked in 1971 were part-time workers (all percentage figures are weighted to reflect national averages).

Estimation of the overall incidence of involuntary underemployment requires an additional series of calculations because those 4.99 percent dropouts and unemployed heads were not asked by SRC interviewers

whether their 1971 part-time work status was voluntary of involuntary. It is necessary to estimate for these part-time workers the relative portions that were voluntarily and involuntarily underemployed in 1971. Utilizing the previously discussed 32 variable discriminant function, each of the relevant observations was classified as voluntary or involuntary regarding part-time work status. The classification procedure assigns observations to the predetermined categories, voluntary or involuntary, utilizing the discriminant analysis classification function corresponding to the 425 observations presented in the earlier section, "Distinguishing Voluntary from Involuntary Underemployment"; the discriminant function itself has not been re-estimated. The classification results, weighted to be representative of the entire country in 1971, are listed below:

1. Amongst unemployed heads who worked part-time in 1971, 21 percent were voluntarily underemployed and 79 percent were involuntarily underemployed.
2. Among heads not in the labor force who worked part-time in 1971, 37.2 percent were voluntarily underemployed and 62.8 percent were involuntarily underemployed.

With the additional information contained in these classification results, it is now possible to estimate the national incidence of involuntary underemployment among household heads (see Table 4).

Nearly 15 percent of the nonaged heads worked part-time in 1971 and an estimated 54 percent of this group was involuntarily underemployed, willing but unable to devote more time to gainful employment. While Table 4 indicates that slightly over 8 percent of the household

Table 4. Work Status for Non-Aged Heads of Households Who Worked During 1971 (weighted)

	1971 Work Status (percent)			
	Employed full-time	Employed part-time		
		all part-time	voluntary	involuntary
1. Employed in 1972: (94.95%)				
a. worked full-time in 1971	83.97%			
b. worked part-time in 1971		9.98%	5.31%	4.67%
2. Unemployed in 1972: (2.36%)				
a. worked full-time in 1971	0.63%			
b. worked part-time in 1971		1.73%	0.36%	1.37%
3. Not in the labor force in 1972: (3.69%)				
a. worked full-time in 1971	0.43%			
b. worked part-time in 1971		3.26%	1.21%	2.05%
4. Totals:				
a. full-time in 1971	85.03%			
b. part-time in 1971		14.97%		
1. voluntary			6.88%	
2. involuntary				8.09%
c. full-time plus part-time	100.0%			

Note: 5.8 percent of all non-aged heads of households were not employed in 1971.

heads were involuntarily restricted to part-time work in 1971, it also reveals that this 8 percent subset of workers accounted for over half of all unemployed and recent labor force dropouts as of the spring 1972 SRC survey data (Table 5).

Table 5 highlights some surprising figures:

1. Of all heads of households who worked in 1971 and were not in the labor force in early 1972, 55.5 percent were involuntarily underemployed in 1971.
2. Of all heads who worked in 1971 and were unemployed in early 1972, 58.0 percent were involuntarily underemployed in 1971.

Since those household heads who are involuntarily restricted to part-time work earn rather low average hourly wages and often work as unskilled laborers (see Table 1, group mean vectors), a number of them can be expected to earn poverty level incomes. To test the notion that part-time workers in general, and involuntarily underemployed workers in particular, are heavily over-represented at the bottom end of the income distribution, taxable household income for 1971, and 1971 work status were cross-tabulated (Table 6). Approximately 7 percent of all working non-aged household heads reported 1971 taxable incomes of less than $3,000. Nearly half of these lowest income household heads worked part-time but a small majority worked full-time in 1971; lack of work is clearly a major cause of low incomes, but low wages is still an overwhelmingly important cause of low incomes among working household heads.

Table 5. Spring 1972 Labor Force Status
Cross-Classified by Work Experience for 1971
(weighted)

Spring 1972 Status	1971 Work Experience (in percent)			
	Fully employed	Part-time: voluntary	Part-time: involuntary	Totals
1. Employed	89.4%	5.6%	5.0%	100.0%
2. Unemployed	26.6%	15.4%	58.0%	100.0%
3. Labor force dropout	11.6%	32.9%	55.5%	100.0%

Table 6. Household Heads Who Worked in 1971 and Reported Total Household Taxable Incomes of Less Than $3,000

1971 Labor Force Status	Percent with Taxable Income Below $3,000
Fully employed	51.8%
Voluntary part-time	22.6%
Involuntary part-time	25.6%

Concluding Remarks

Some of the categories and concepts utilized in the present study differ from traditional BLS methods because published BLS reports fail to grapple with many of the labor market phenomena discussed herein. The BLS reports various aspects of the labor market participation for males and females; these reports often implicitly (never explicitly) equate males and household heads. Part-time work amongst females (and teenagers) seems to be brushed aside on the implicit assumption that these workers are not the chief earners in their households. The SRC data examined in this study indicates that 30.9 percent of Black families, and 10.3 percent of White families with two or more members are headed by females.[9] Because this study focuses upon employment problems of heads of households, it cannot utilize BLS categories, nor can it implicitly assume that females are secondary income earners in their households. Furthermore, this study has rejected the BLS definition of part-time employment status (defined in terms of average hours worked per week) because it fails to recognize that many part-time workers in seasonal or unstable jobs cannot find year-round work; those who work no more than 40 weeks per year are counted as part-time workers in the present study. By focusing upon heads of households (regardless of sex) and by redefining part-time employment status, this study has a distracting tendency to mix its own definitions with BLS concepts in a manner that limits the extent to which it can be compared directly to other published findings on part-time employment.

The BLS methodology, though, allows it to write off part-time work as a minor phenomenon, affecting "chiefly adult women and teenagers." The present study argues that part-time employment is a substantial problem afflicting the economic well-being of a non-trivial percentage of heads of households, especially in the younger, older, least educated unskilled segments of the labor force. The involuntarily underemployed earned an average wage of $2.70 in 1971; low wages combined with part-time employment suggest low labor incomes for many of the household heads who are involuntarily restricted to part-time work. Finally, many involuntarily underemployed workers appear to change labor force status frequently; they are often participants in a labor market where unskilled workers earn low wages working at unstable jobs. The extent to which this instability is a characteristic of the workers who occupy the jobs rather than the jobs themselves is not known with precision. The expressed desire of the involuntarily underemployed to <u>increase</u> their labor input, though, suggests that the jobs themselves are the crux of the underemployment problem facing these heads of households.

NOTES

[1]The Wirtz subemployment findings are summarized in William J. Spring, "Underemployment: The Measure We Refuse to Take," New Generation 53 (no. 1, Winter 1971); the concept of subemployment is discussed in Bennett Harrison, Education, Training and The Urban Ghetto (Baltimore: Johns Hopkins Press, 1972), chapter 3.

[2]Primary, secondary labor market dichotomizations are discussed and analyzed in David Gordon, Theories of Poverty and Underemployment (Lexington, Mass.: Lexington Books, 1972).

[3]See p. 13 of the U. S. Department of Labor's 1973 Manpower Report.

[4]See, Survey Research Center, A Panel Study of Income Dynamics: Study Design, Procedures, Available Data (Ann Arbor: Institute for Social Research, 1972), pp. 68-268, for copies of the actual questionnaires used to record interview data.

[5]Variables utilized in discriminant analysis exercises are described in greater detail in the Survey Research Center, A Panel Study of Income Dynamics: Tape Codes and Indexes (Ann Arbor: Institute for Social Research, 1972). Various variables can be tracked down by utilizing the excellent indexes on pp. 833-900.

[6]The aspirations index described on p. 789, ibid., has been altered to delete "Wanted more work . . . V209 = 1" because of obvious problems inherent in using the same variable as both dependent and independent in the context of the same econometric model.

[7]In this context, a variable's significance is computed by deleting it from the model; if the resultant loss in overall discriminating power is statistically significant, then the variable is judged to be a statistically significant discriminator.

[8]The discriminant analysis classification technique used in this study is explained in greater detail in Timothy Bates, "An Econometric Analysis of Lending to Black Businessmen," The Review of Economics and Statistics 55 (no. 3, August 1973), pp. 274, 275 and 280.

[9]Panel Survey: Study Design, Procedures and Available Data, p. 32. When the SRC data was compared with U. S. Census data, the same general pattern emerged. According to the Census data, 28.3 percent of Black families, and 9.1 percent of White families with two or more members are headed by females.